

International Workshop on Spin–Orbit Driven Phenomena in Quantum Matter

Where spin and orbit intertwine: new frontiers in quantum materials

January 12–13, 2026

Aula D - Department of Physics and Astronomy “A. Righi”, University of Bologna - via Irnerio 46, Bologna, Italy

12 January			
9:30	Welcome		
Chair: C. Franchini			
10-10:30	Liviu Chibotaru	KU Leuven (Belgium)	Multipolar exchange interaction and complex order in insulating lanthanides
10:30-11	Sergii Khmelevskyi	TU Wien (Austria)	Multipolar order in f-electron systems and its interaction with crystal lattices
11-11:30	Coffee break		
Chair: V. Mitrović			
11:30-12	Silvia Picozzi	Univ. Milano Bicocca (Italy)	Modelling of the interplay between inversion symmetry breaking and spin-orbit-coupling
12-12:30	Federico Mazzola	University of Padova (Italy)	Unconventional magnetism
12:30-13	Marco Moretti	Politecnico di Milano (Italy)	RIXS interferometry on cluster Mott insulators
Chair: L. Pourovskii			
14:30-15	Alessandro Stroppa	CNR SPIN l'Aquila (Italy)	The dual role of killer Jahn–Teller modes and screw symmetry in chiral ferromagnetic 2D hybrid perovskites
15-15:30	Mario Cuoco	CNR SPIN Salerno (Italy)	Multipolar Phases in Spin–Orbit Coupled Matter
15:30-16	Vesna Mitrović	Brown University (USA)	Novel glimpse into ground states of spin-orbit entangled quantum matter
16-16:30	Coffee break		
Chair: M. Cuoco			
16:30-17	Giuseppe Allodi	University of Parma (Italy)	to be defined (on Ba2CaOsO6 43Ca NMR)
17-17:30	Lorenzo Celiberti	University of Vienna (Austria)	Polarons in spin-orbit coupled systems
17:30-18	Anshu Kataria	University of Parma (Italy)	Muon Spectroscopy of Hidden Order in Double Perovskites
13 January			
Chair: S. Lupi			
9:30-10	Leonid Pourovskii	École Polyt., Palaiseau (France)	Anisotropic spin Hamiltonians and low-temperature magnetic phases in triangular-lattice rare-earth compounds
10-10:30	Liviu Hozoi	IFW Dresden (Germany)	Direct vs charge-transfer exchange in d-/f-electron Kitaev-Heisenberg magnets
10:30-11	Valerio Scagnoli	ETHZ–PSI (Switzerland)	Coupling between electronic band structure and magnetic ordering in NaOsO3: insights from magnetization dynamics experiments
11-11:30	Coffee break		
Chair: S. Sanna			
11:30-12	Stefano Lupi	Univ. Rome “La Sapienza” (Italy)	Low Energy Electrodynamics of Topological Materials
12-12:30	Paola Gentile	CNR SPIN Salerno (Italy)	Twisting spins, shaping topology: spin–orbit coupling as a tool for topological phenomena in low-dim systems
12:30-13	Domenico Di Sante	Univ. of Bologna (Italy)	Spin-Berry curvature in kagome metals
13:00	CONCLUSION		